

Me vs. Dspace

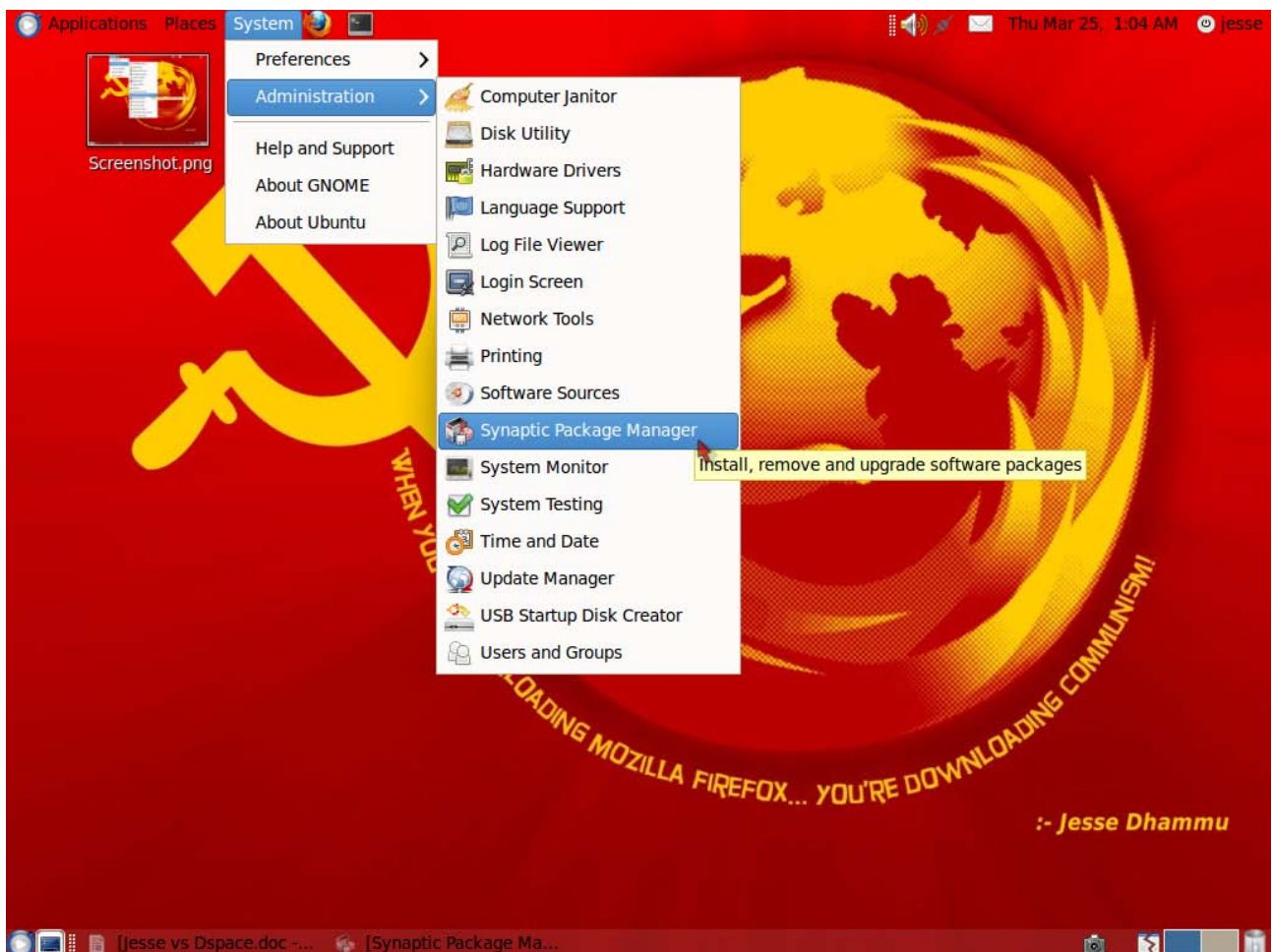
Prerequisites software we need.

Java Development Kit
Apache Tomcat
Apache Maven
Apache Ant
PostgreSQL
.M2

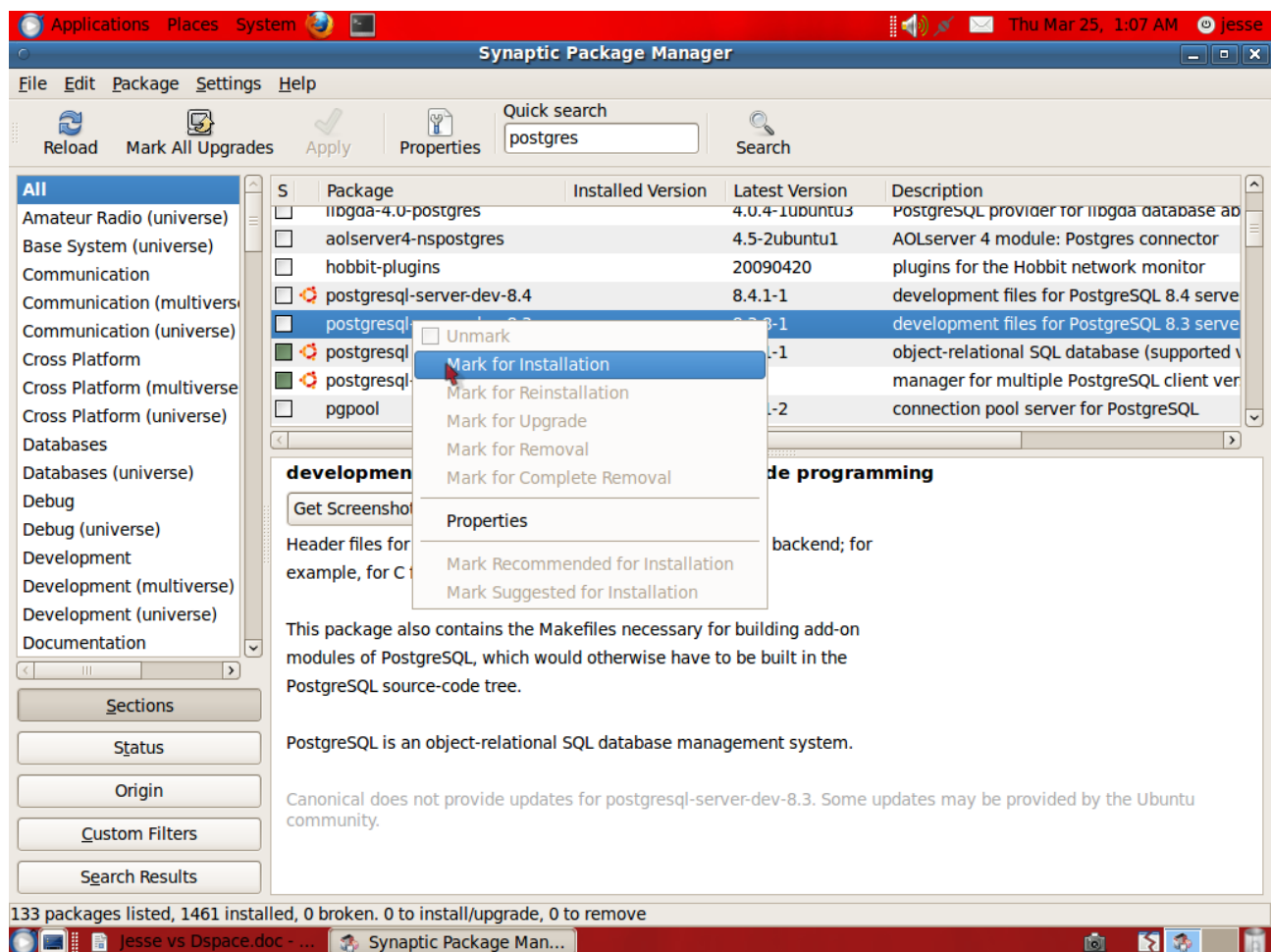
JDK can be downloaded from
Apache Tomcat from
Apache Maven
PostgreSQL
Apache Ant

[Http://java.sun.com/javase/downloads/widget/jdk6.jsp](http://java.sun.com/javase/downloads/widget/jdk6.jsp)
<http://tomcat.apache.org/download-60.cgi>
<http://maven.apache.org/download.html>
(download it with Package installer)
<http://ant.apache.org/bindownload.cgi>

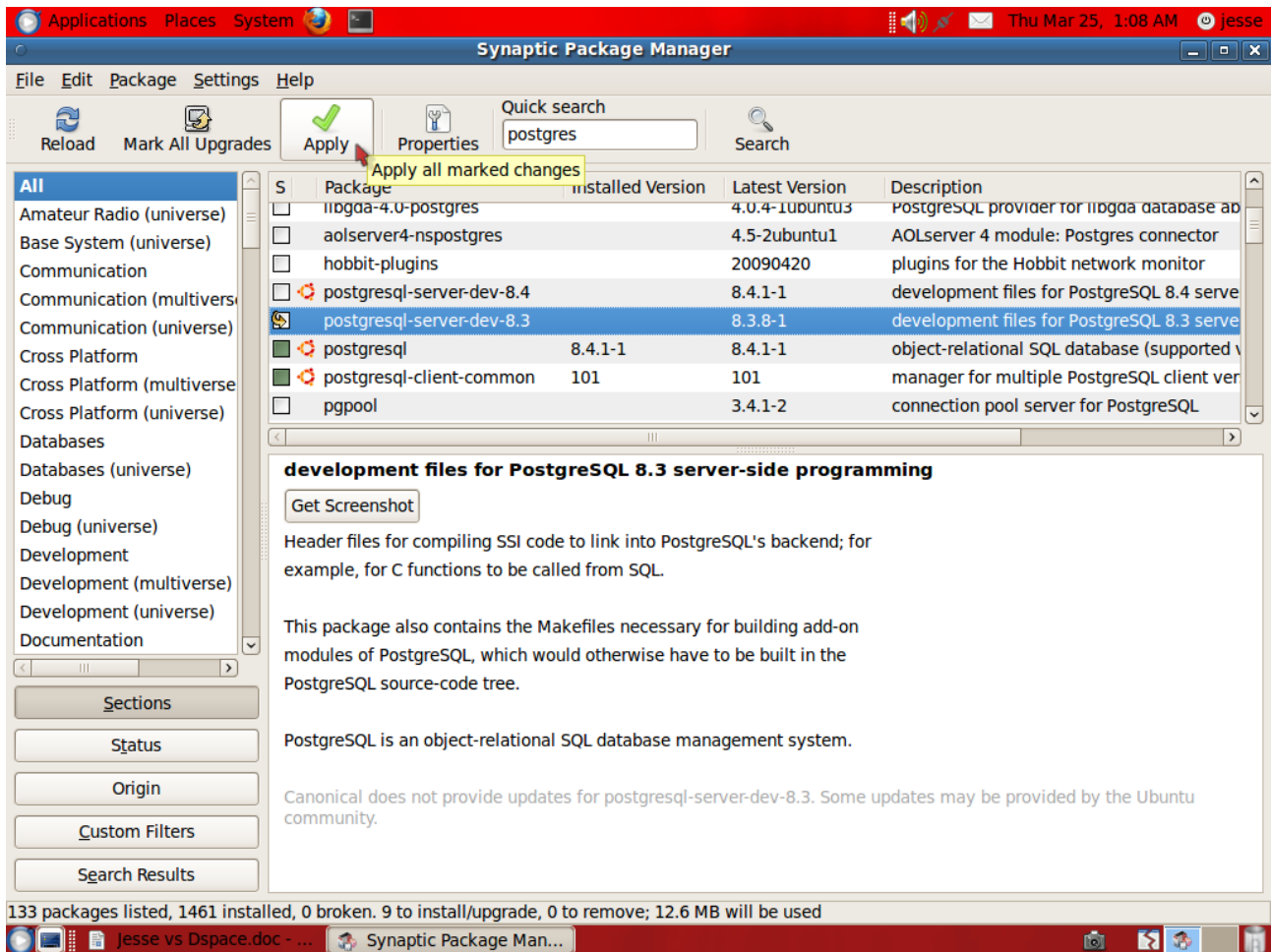
First of all we need to Download and Install PostgreSQL and Maven2 with help of some Package Manager or any Software installer, which is an inbuilt tool in Linux Operating system (you must have an INTERNET connection on your pc). This tool will Search your required software from worldwide Linux repository, and will download and Install it for you. Isn't it Kool..?!?! Let's Start...



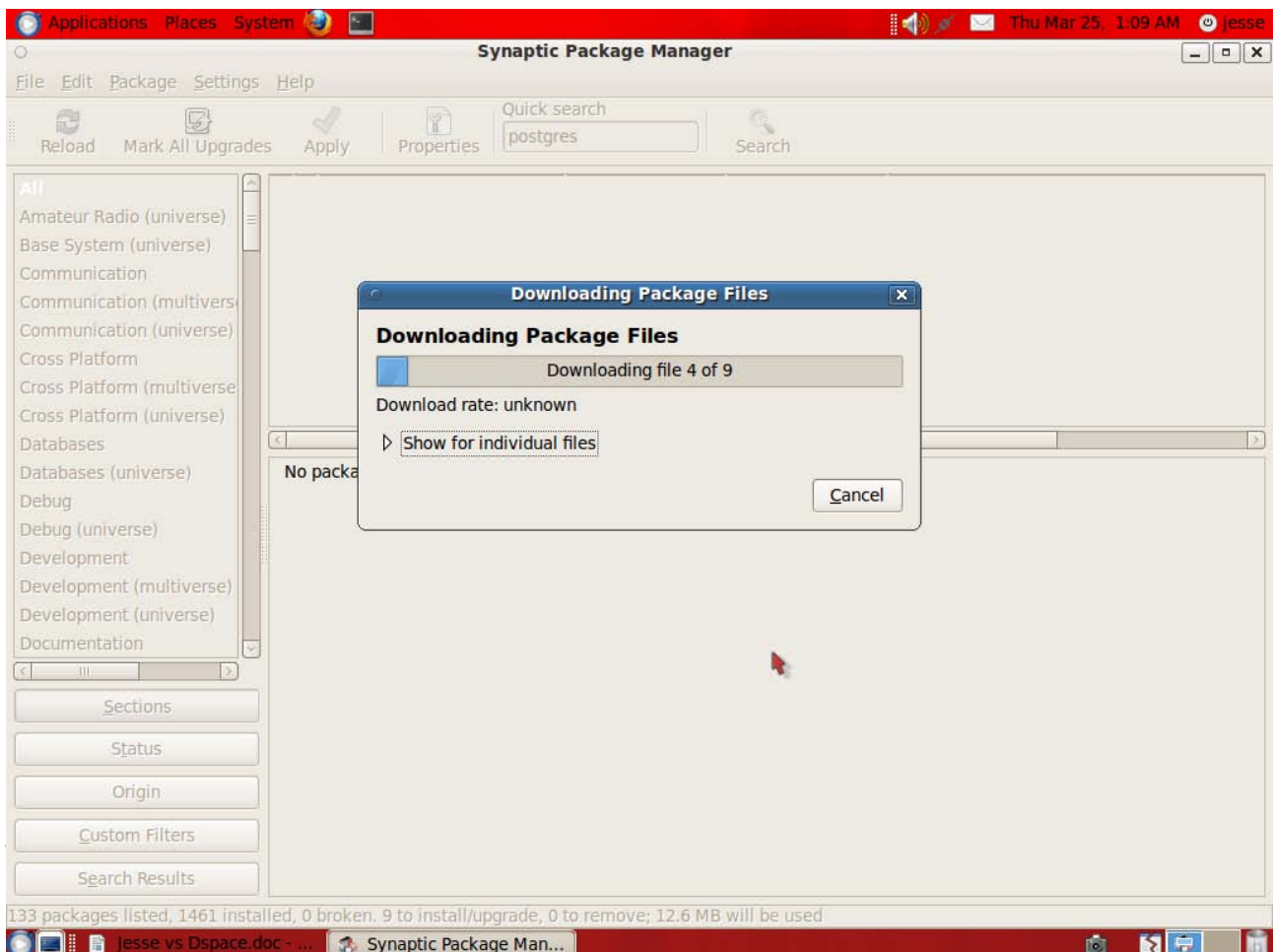
Provide your user password if it asks.
Package manager will start.



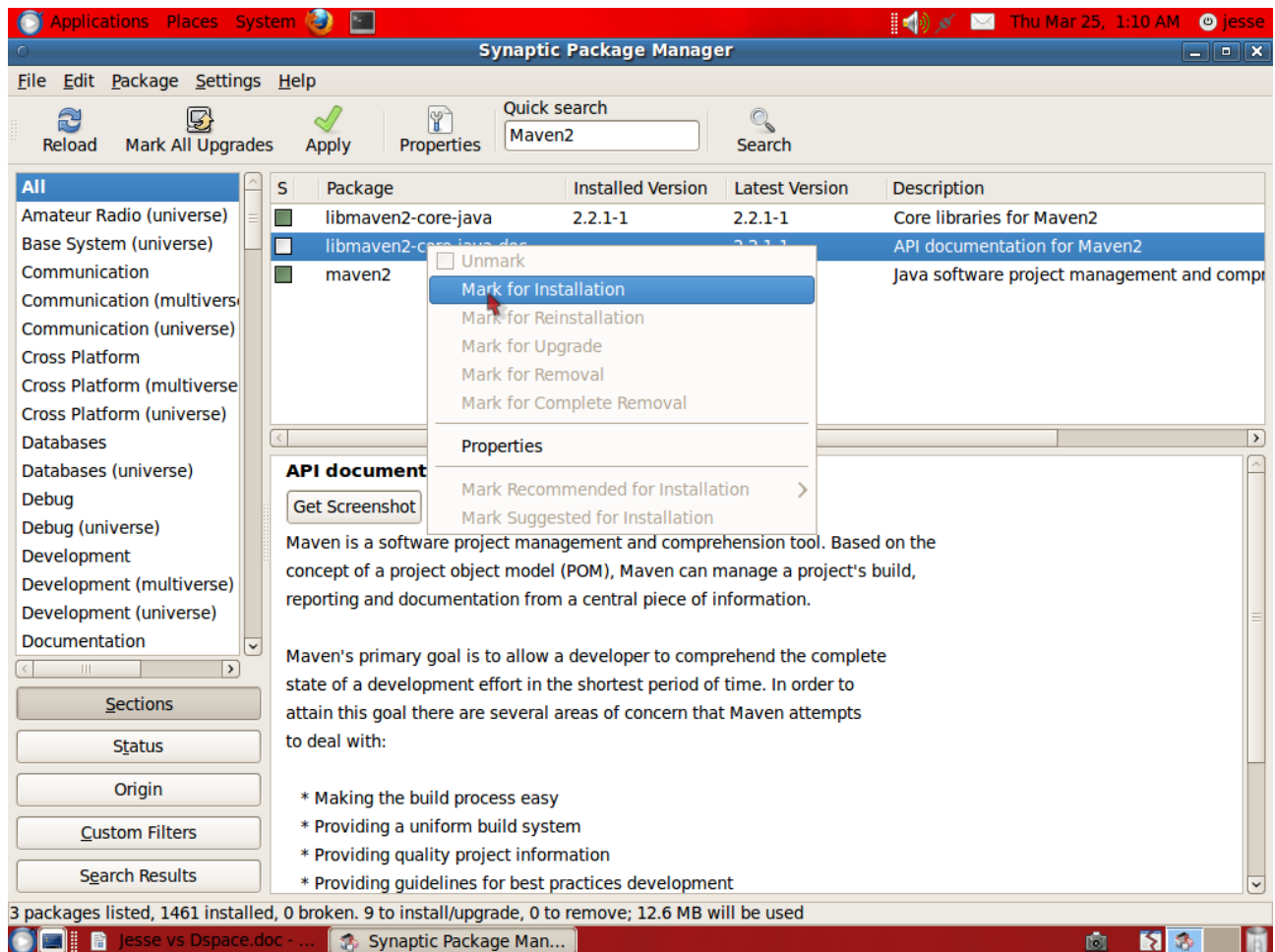
Make a quick search of postgresSQL it will now search the software from entire Linux repository and will give you a list of all the available softwares matching your search keyword, right click on your required software and click on "Mark for Installation".



Then click on Apply button. This will begin to download that software and after download is complete, its installation will start automatically. Just like this.

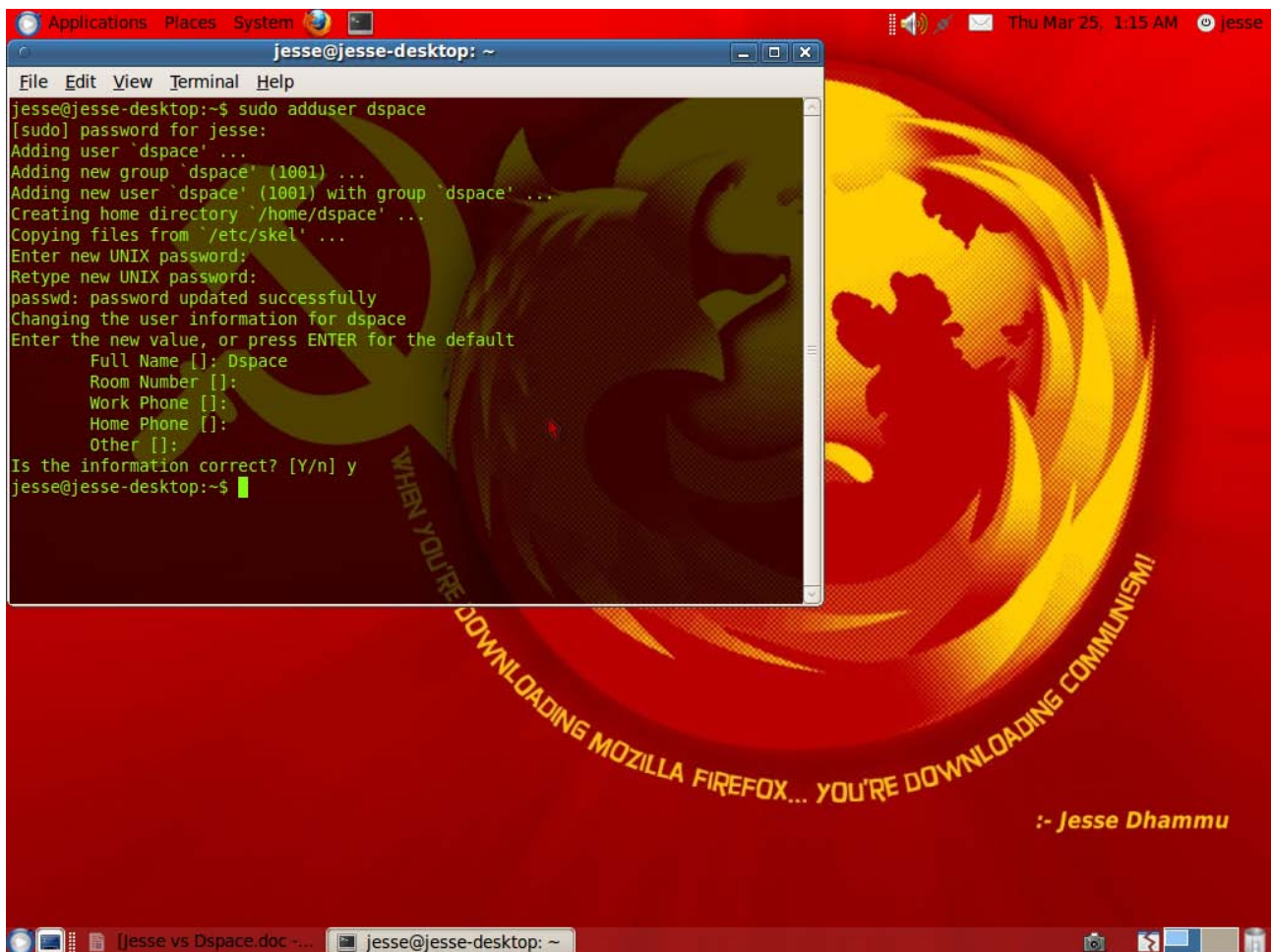


Now next job is to install Maven2 (the same way) from this tool. Search for Maven2, right click on it and mark it for installation. System will automatically download and install it for you.



Ok now PostgreSQL and Maven2 are installed on your PC. Next you'll need to create Dspace user on your PC by following command.

```
jesse@jesse-desktop:~$ sudo adduser dspace
```

Here, after this command it will ask you for some other information like password, Full name, give password and full name and leave all the other things blank. Press Y at last and it's done.

Now you can logoff from your current user or administrator and Logon Dspace.



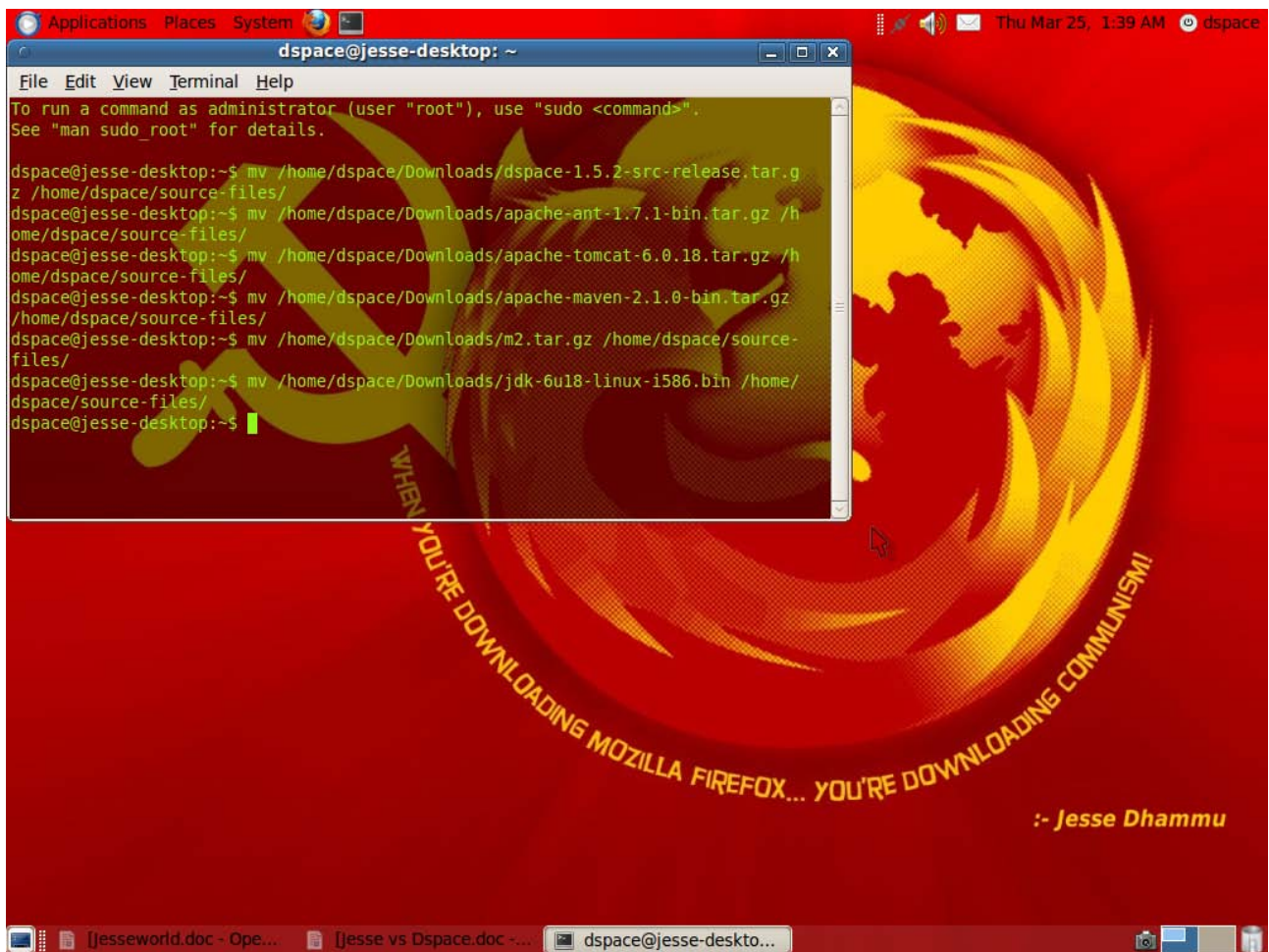
Now after Logging in to Dspace, open the Terminal window there and make a folder named "Source-files", using the following command.

```
dspace@jesse-desktop:~$ mkdir source-files
```

now you can download all the required prerequisite software and all the source files in this folder, or if you have already downloaded the files, just move those files in this folder by giving this command.

```
dspace@jesse-desktop:~$ mv /home/dspace/Downloads/dspace-1.5.2-src-release.tar.gz  
/home/dspace/source-files/
```

(move all the files one by one using the same command with different file names.)

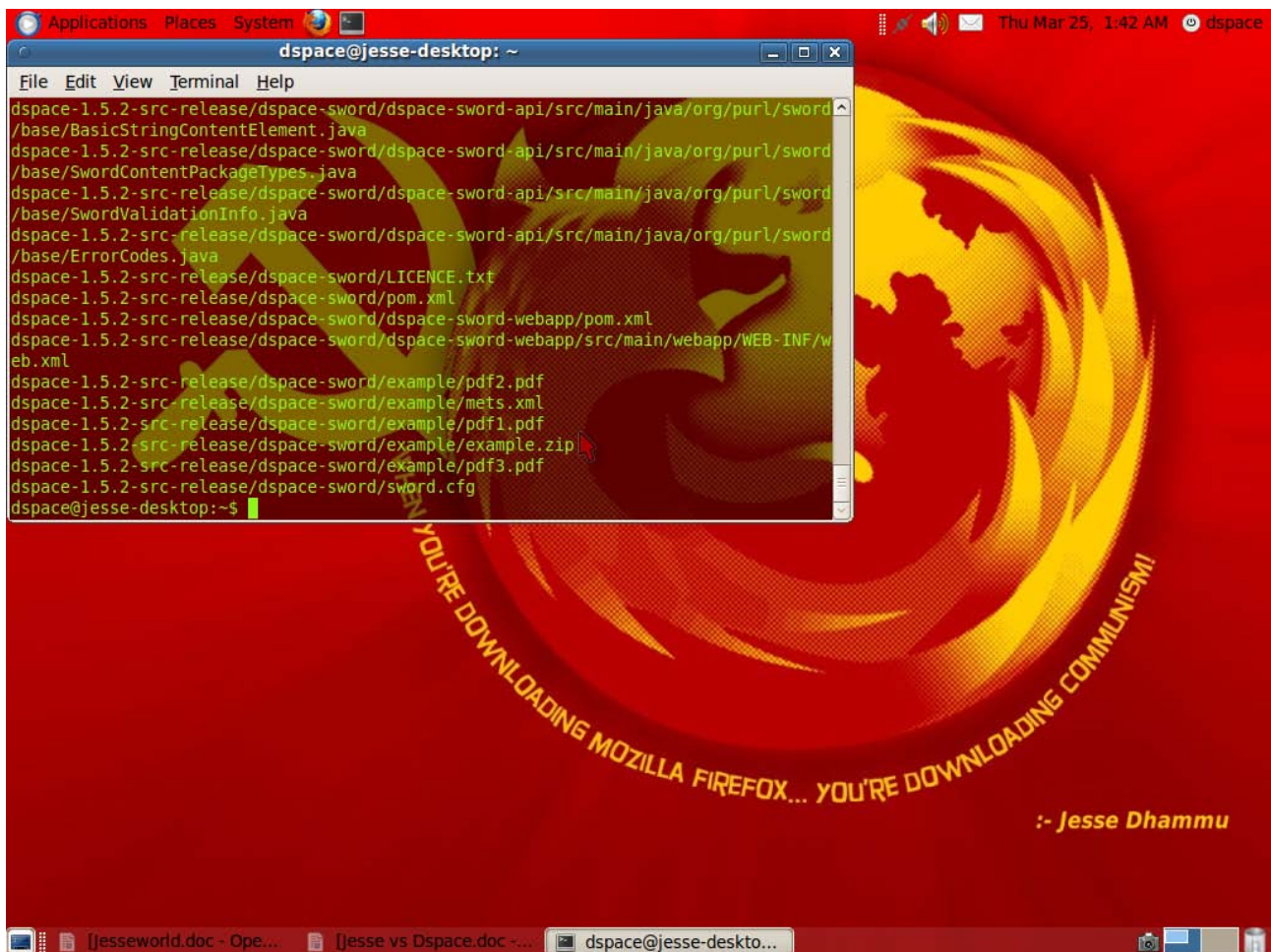


Now all the files will be in folder source-file, from here you will need to extract those tar files into /home/dspace.

This can be done by giving this command.

```
dspace@jesse-desktop:~$ tar -zxvf /home/dspace/source-files/dspace-1.5.2-src-release.tar.gz -C /home/dspace/
```

This command will untar all the files in dspace source file into /home/dspace folder, and you will see this stuff running on your terminal screen.



Now Extract other source files also by giving same command but change the source file name in each command .. like .

```
dSPACE@jesse-desktop:~$ tar -zxvf /home/dSPACE/source-files/apache-ant-1.7.1-bin.tar.gz -C /home/dSPACE/
```

```
dSPACE@jesse-desktop:~$ tar -zxvf /home/dSPACE/source-files/apache-maven-2.1.0-bin.tar.gz -C /home/dSPACE/
```

```
dSPACE@jesse-desktop:~$ tar -zxvf /home/dSPACE/source-files/apache-tomcat-6.0.18.tar.gz -C /home/dSPACE/
```

```
dSPACE@jesse-desktop:~$ tar -zxvf /home/dSPACE/source-files/m2.tar.gz -C /home/dSPACE/
```

(move jdk to /home/dSPACE)

```
dSPACE@jesse-desktop:~$ mv /home/dSPACE/source-files/jdk-6u18-linux-i586.bin /home/dSPACE/
```

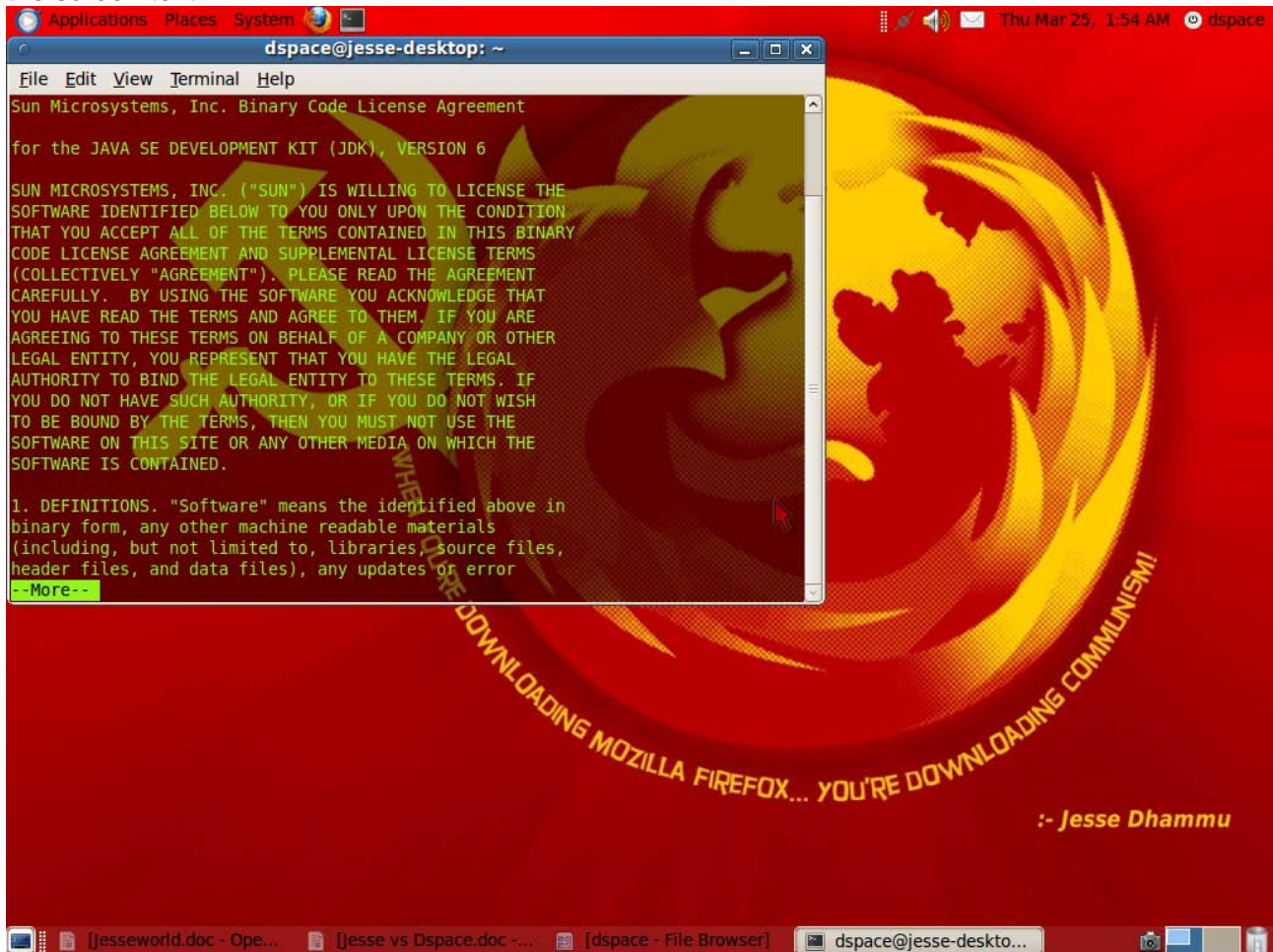
Then change the permissions of that bin file, so that you will be able to execute that. Give this command in terminal.

```
dSPACE@jesse-desktop:~$ chmod 777 jdk-6u18-linux-i586.bin
```

now install the JDK file with the following command

```
dSPACE@jesse-desktop:~$ ./jdk-6u18-linux-i586.bin
```

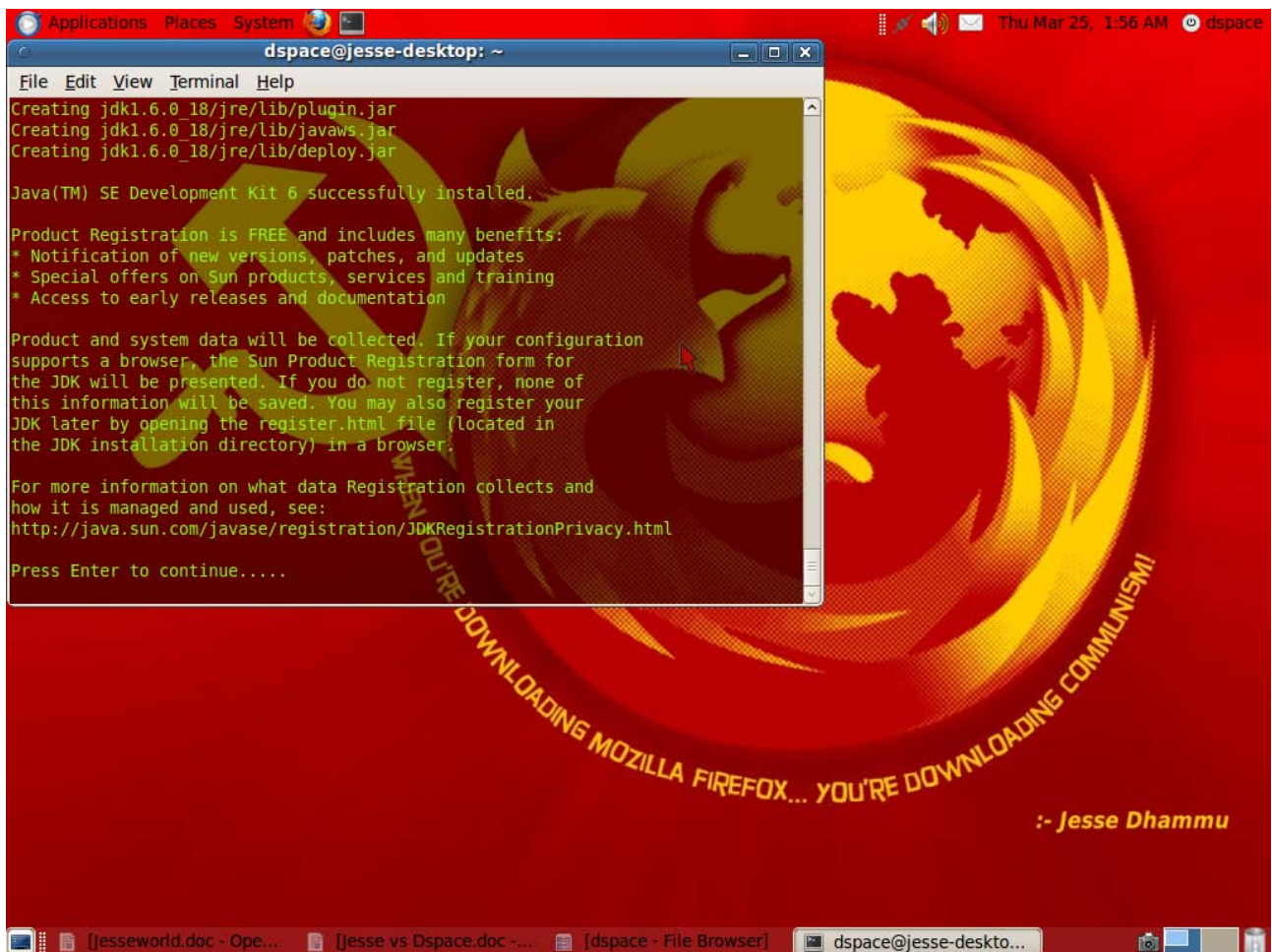

This command will execute the JDK binary file and it will show the EULA, press enter to scroll up the screen text.



```
dspace@jesse-desktop: ~  
File Edit View Terminal Help  
Sun Microsystems, Inc. Binary Code License Agreement  
for the JAVA SE DEVELOPMENT KIT (JDK), VERSION 6  
  
SUN MICROSYSTEMS, INC. ("SUN") IS WILLING TO LICENSE THE  
SOFTWARE IDENTIFIED BELOW TO YOU ONLY UPON THE CONDITION  
THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS BINARY  
CODE LICENSE AGREEMENT AND SUPPLEMENTAL LICENSE TERMS  
(COLLECTIVELY "AGREEMENT"). PLEASE READ THE AGREEMENT  
CAREFULLY. BY USING THE SOFTWARE YOU ACKNOWLEDGE THAT  
YOU HAVE READ THE TERMS AND AGREE TO THEM. IF YOU ARE  
AGREEING TO THESE TERMS ON BEHALF OF A COMPANY OR OTHER  
LEGAL ENTITY, YOU REPRESENT THAT YOU HAVE THE LEGAL  
AUTHORITY TO BIND THE LEGAL ENTITY TO THESE TERMS. IF  
YOU DO NOT HAVE SUCH AUTHORITY, OR IF YOU DO NOT WISH  
TO BE BOUND BY THE TERMS, THEN YOU MUST NOT USE THE  
SOFTWARE ON THIS SITE OR ANY OTHER MEDIA ON WHICH THE  
SOFTWARE IS CONTAINED.  
  
1. DEFINITIONS. "Software" means the identified above in  
binary form, any other machine readable materials  
(including, but not limited to, libraries, source files,  
header files, and data files), any updates or error  
--More--
```

Press Y at the end of this License agreement, then it will start extracting the files, if the processing stops at this screen

this means , your Java Development Kit is installed.



Now give following command to see the list of Directories and programs installed in your Home/dspace folder.

```
dspace@jesse-desktop:~$ ls -l
```

and this will show some files as follows ..

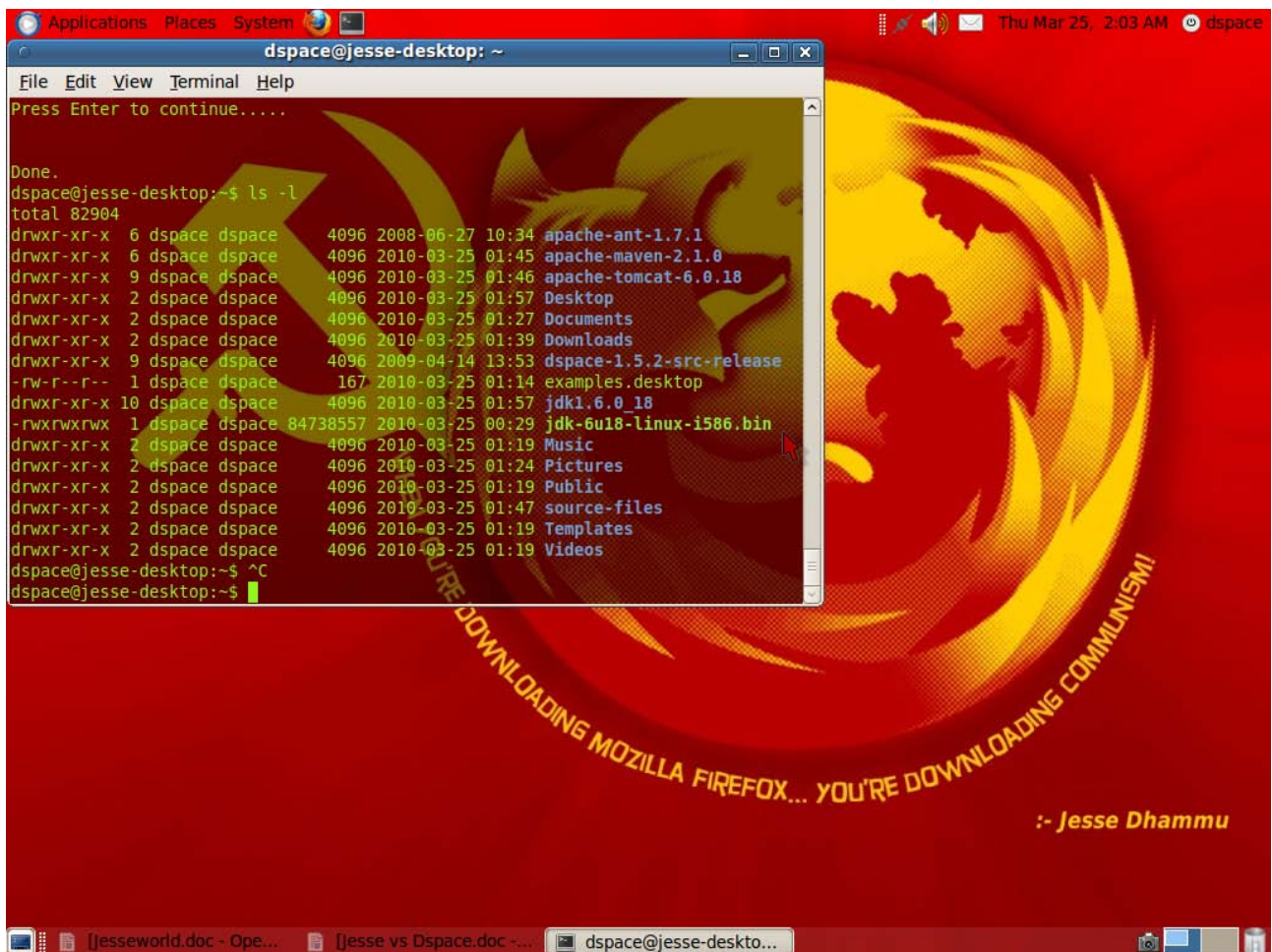
apache-ant-1.7.1

apache-maven-2.1.0

apache-tomcat-6.0.18

dspace-1.5.2-src-release

jdk1.6.0_18



Now set the environmental variables for these files in your Linux operating system, It can be done by this method.

```
dspace@jesse-desktop:~$ sudo gedit .bashrc
```

This command will open an editable .bashrc file of your dspace user. In this file copy the following line at the bottom

```
JAVA_HOME=/home/dspace/jdk1.6.0_18
```

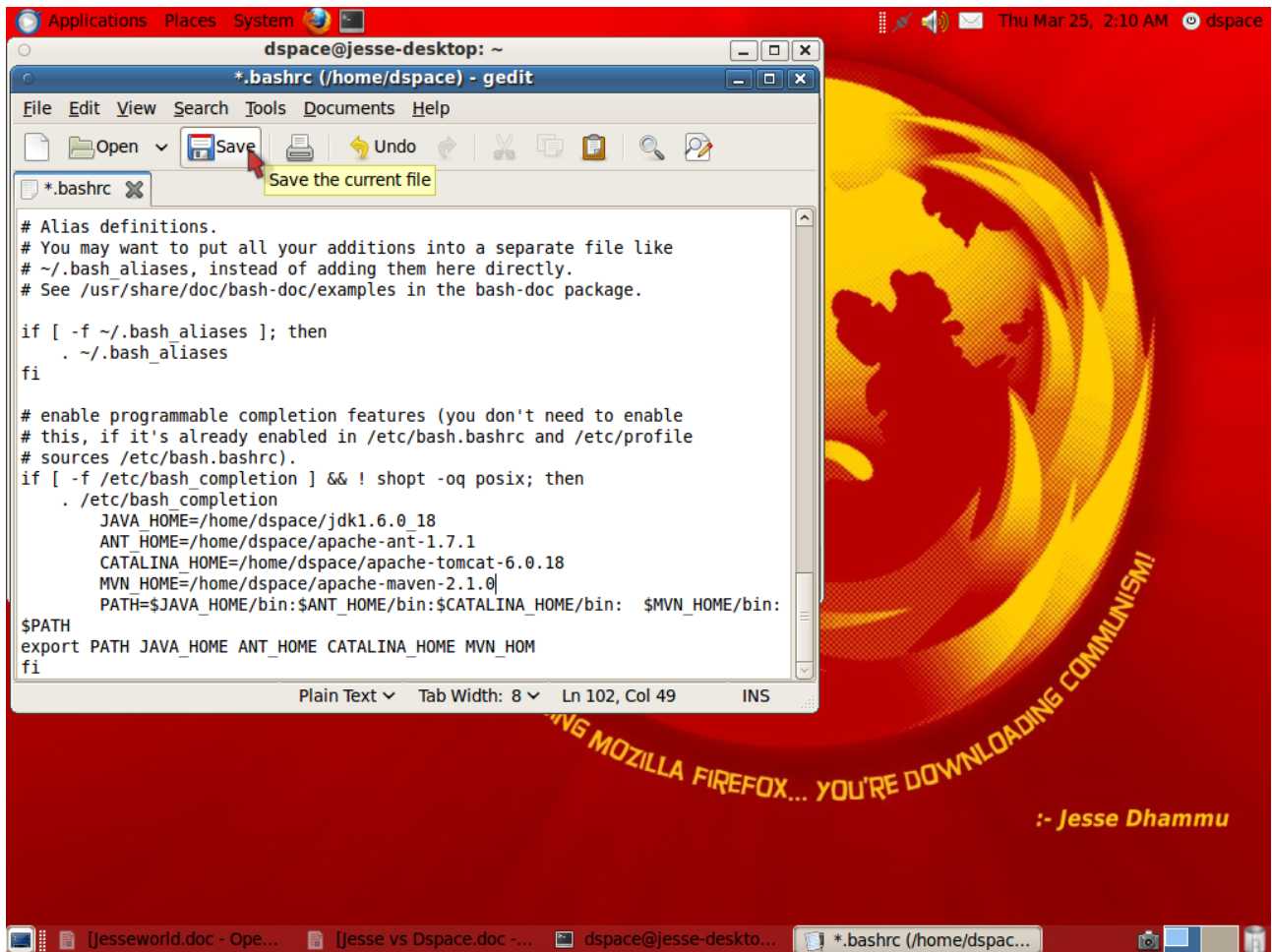
```
ANT_HOME=/home/dspace/apache-ant-1.7.1
```

```
CATALINA_HOME=/home/dspace/apache-tomcat-6.0.18
```

```
MVN_HOME=/home/dspace/apache-maven-2.1.0
```

```
PATH=$JAVA_HOME/bin:$ANT_HOME/bin:$CATALINA_HOME/bin:  
$MVN_HOME/bin:$PATH
```

```
export PATH JAVA_HOME ANT_HOME CATALINA_HOME MVN_HOME
```

Save and close that file.

This part is done. Now our next step is to create the Database for postgres SQL server. Here we start.

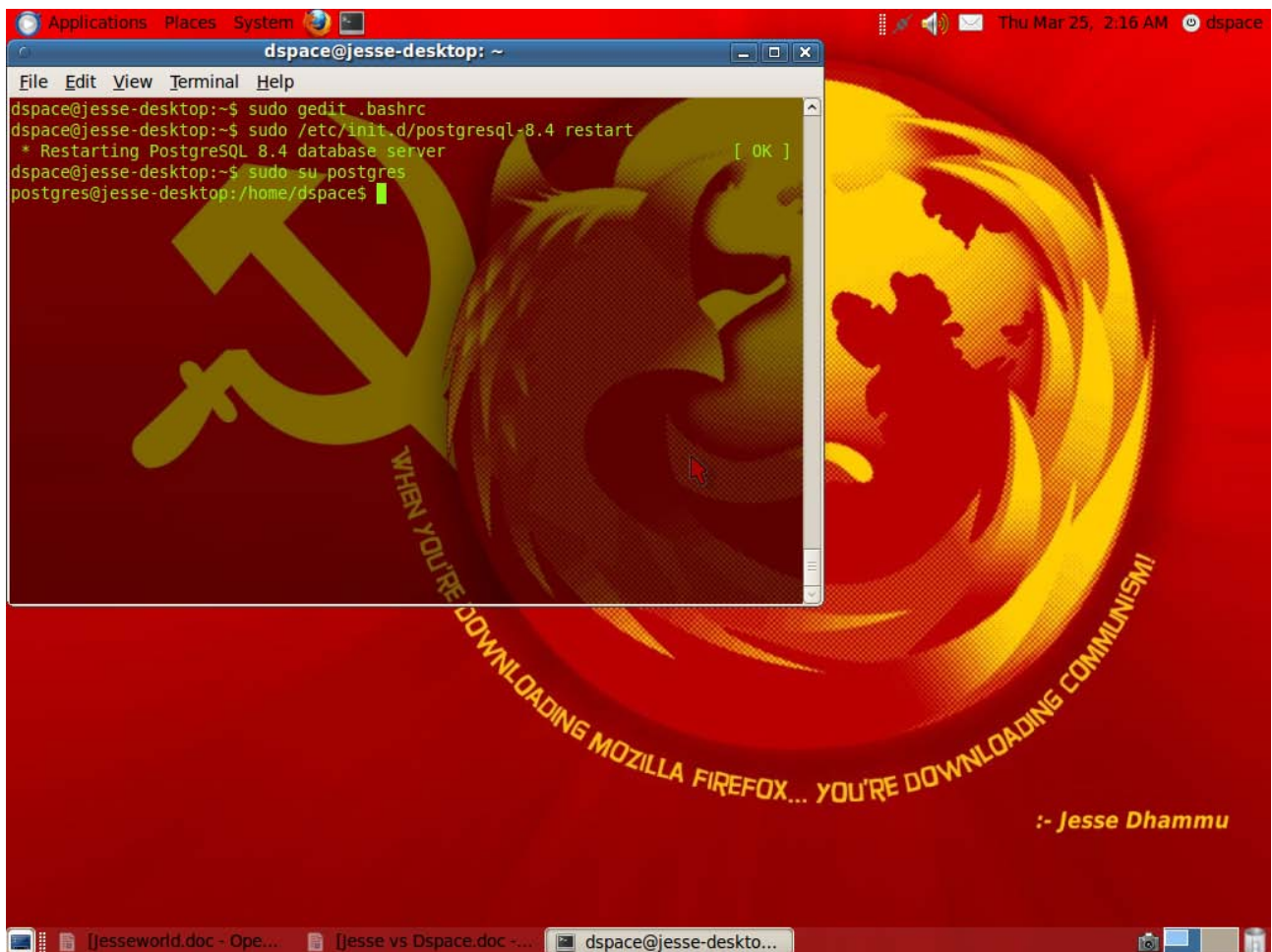
Start your postgresSQL service with following command

```
dspace@jesse-desktop:~$ sudo /etc/init.d/postgresql-8.4 restart
```

then switch to postgres user.

```
dspace@jesse-desktop:~$ sudo su postgres
```

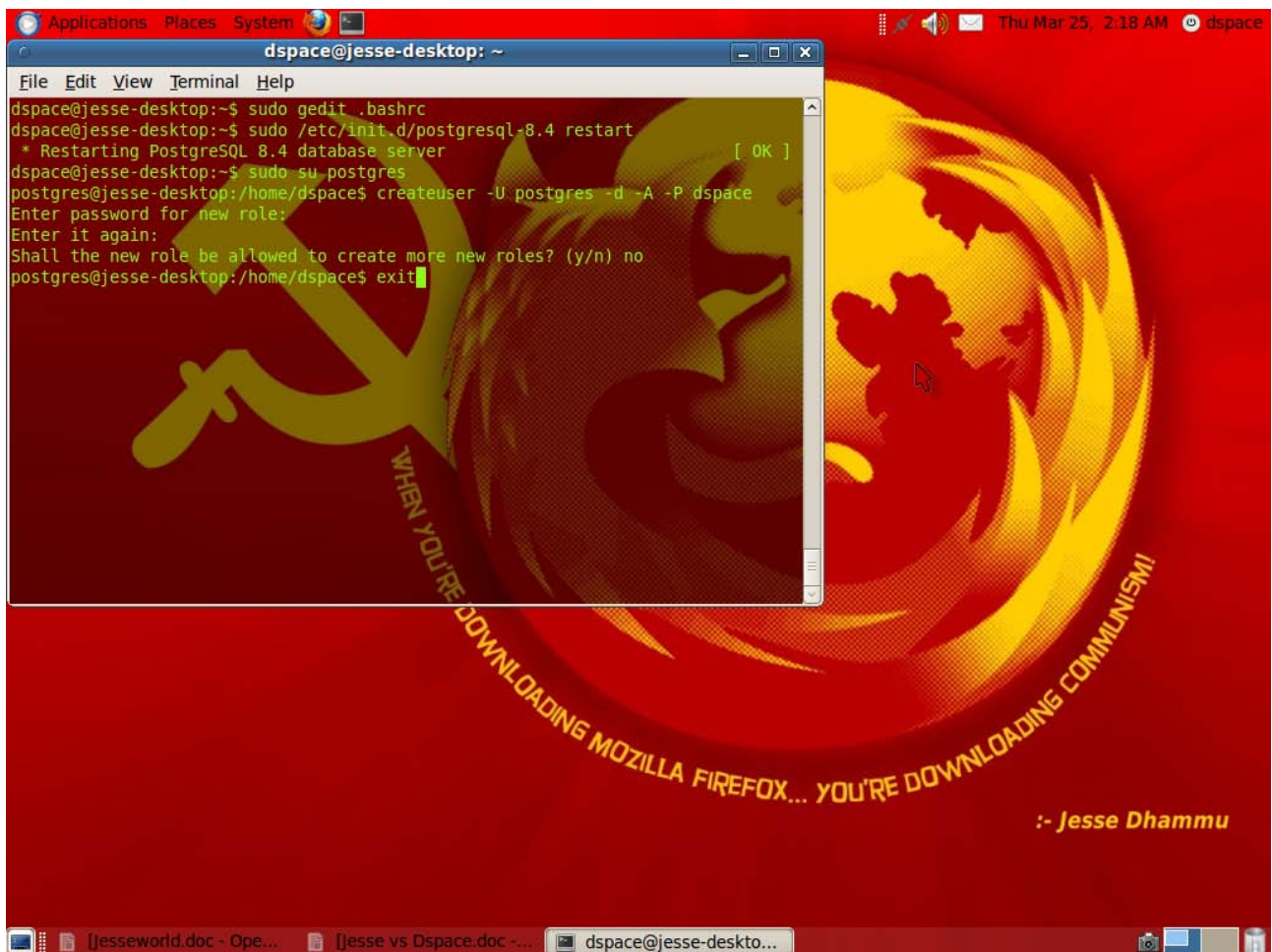
You will get user prompt like this



Now create the DATABASE with this command .

```
postgres@jesse-desktop:/home/dspace$ createuser -U postgres -d -A -P dspace
```

(it will ask for password give dspace(you can choose your own password , but don't forget to enter it in dspace.cfg file :-)) as password
it will ask whether this new role will be able to create new roles say "no")



```
postgres@jesse-desktop:/home/dspace$ exit
```

After you exit you will return to Dspace user mode.

Here create Database dspace as user Dspace.

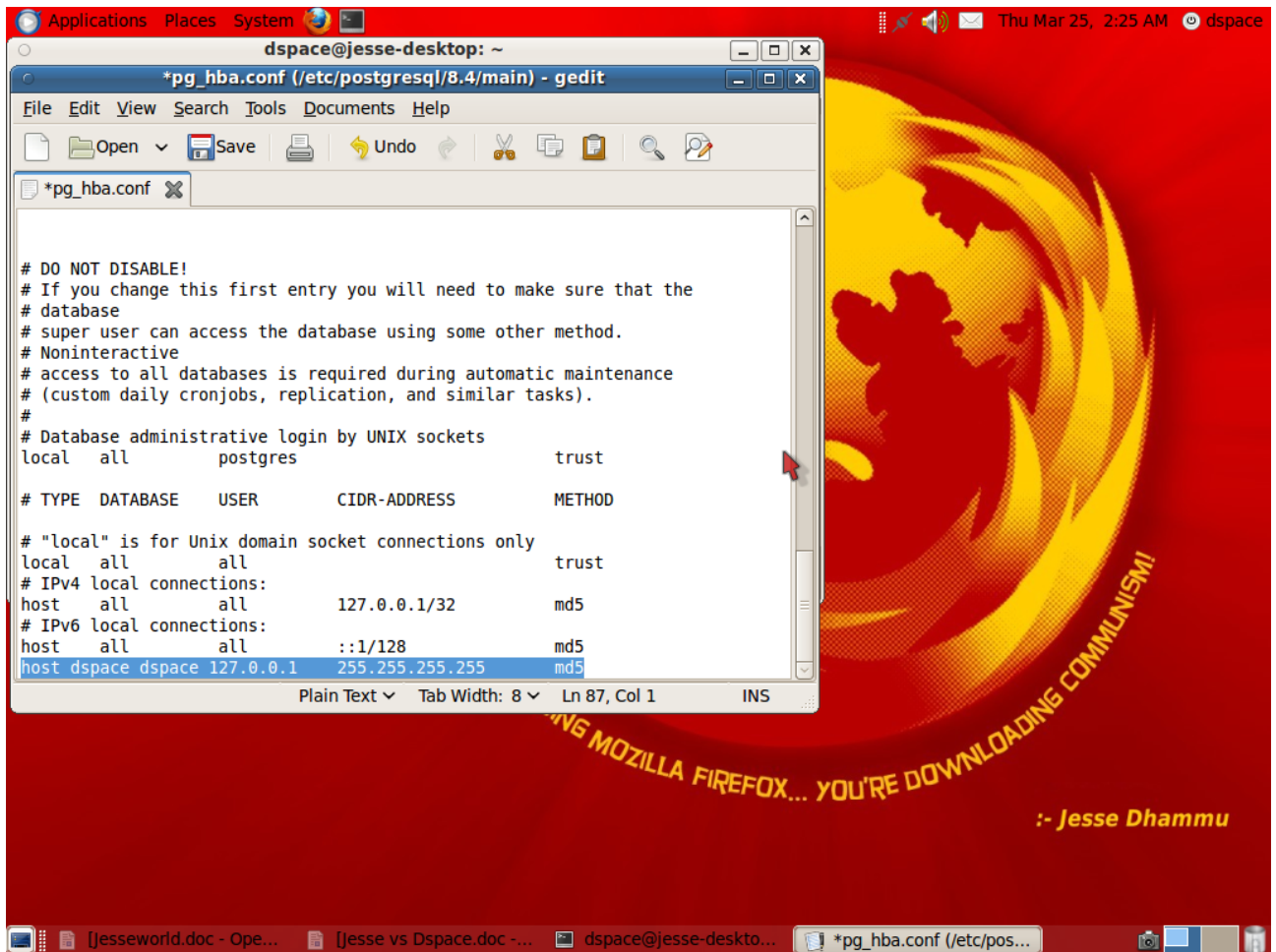
```
dspace@jesse-desktop:~$ createdb -U dspace -E UNICODE dspace
```

now make some changes in postgres configuration file.
Open the configuration file with this command.

```
dspace@jesse-desktop:~$ sudo gedit /etc/postgresql/8.4/main/pg_hba.conf
```

(add this line **host dspace dspace 127.0.0.1 255.255.255.255 md5**)

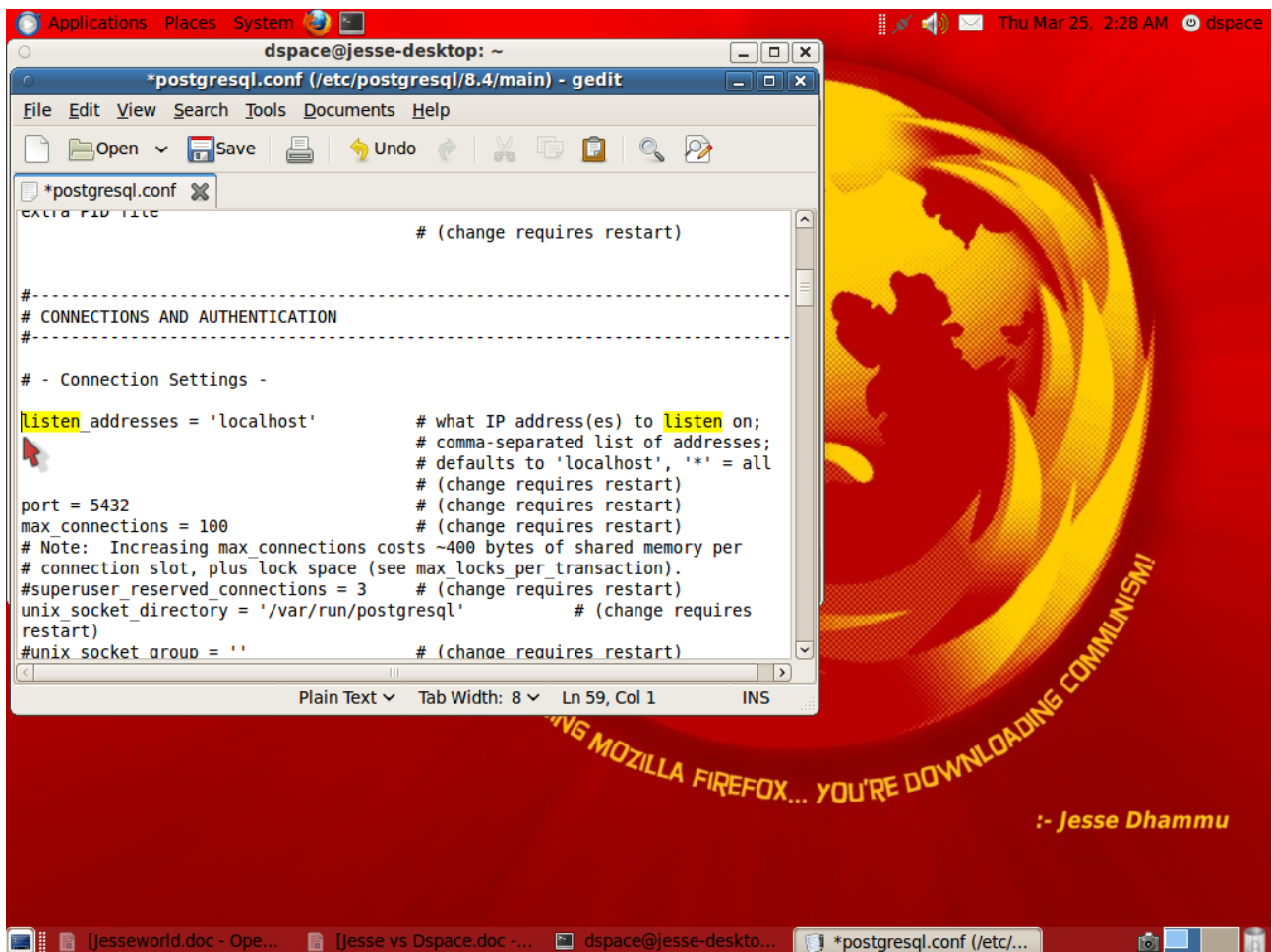
In case of postgresSQL latest versions
Replace "ident sameuser" by "trust"



Save and exit
now run one more command

```
dspace@jesse-desktop:~$ sudo gedit /etc/postgresql/8.4/main/postgresql.conf
```

uncomment the line **listen localhost** by just deleting # in the beginning.



save and exit

Now edit the dspace.cfg file: this is the very important file because many more configurations are to be done in this file.

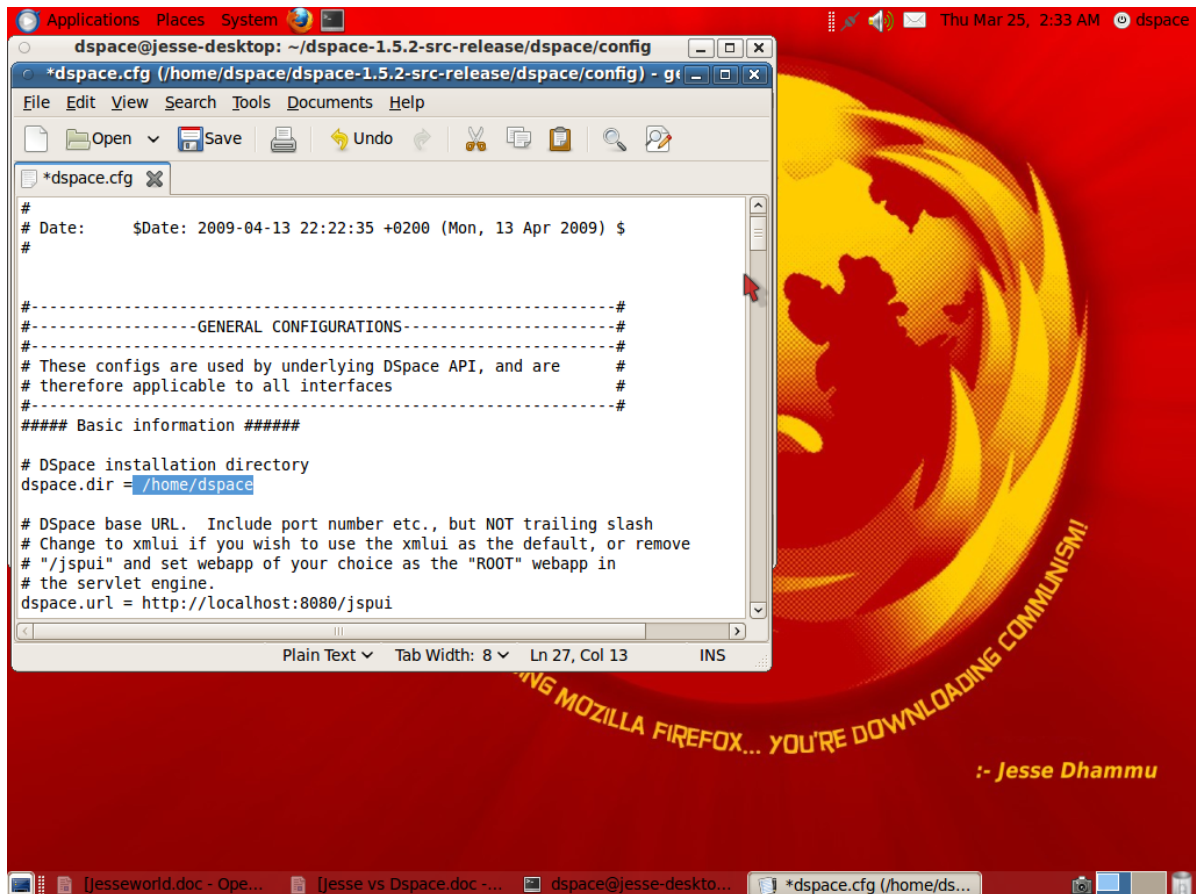
```
dSPACE@jesse-desktop:/$ cd /home/dSPACE/dspace-1.5.2-src-release/dspace/config/
```

```
dSPACE@jesse-desktop:~/dspace-1.5.2-src-release/dspace/config$ sudo gedit dspace.cfg
```

Here in this file the path for webapps folder is defined. And you need to change the path to **/home/dspace**.

```
dspace.dir = /dspace
```

dspace.dir = **/home /dspace** (if you wrong path here it will not create the webapp folder in /home/dspace)



you will have to make some more changes, like in your URL, E-Mail Server, username, password etc.

dspace.url= <http://localhost:8080/jspui>

Name of the site

dspace.name = Dspace at my university

Database username and password

db.username = \${default.db.username}

db.password = \${default.db.password}

#db.username = dspace

#db.password = **dspace** (dspace is default passwd if u will change passwd at the time of creation of database, then u have to change here also).

Email settings

SMTP mail server

mail.server= <your smtp mail server> (I left this place blank as I don't have any email server running on my local network this time)

mail.from.address = <**your mail server**>

feedback.recipient = <your Email ID> (here you can put your email id if you are the administrator, so all requests and feedbacks will reach to you through this id)

It is almost done now. We just need to compile and create webapps folder for Dspace

directory.

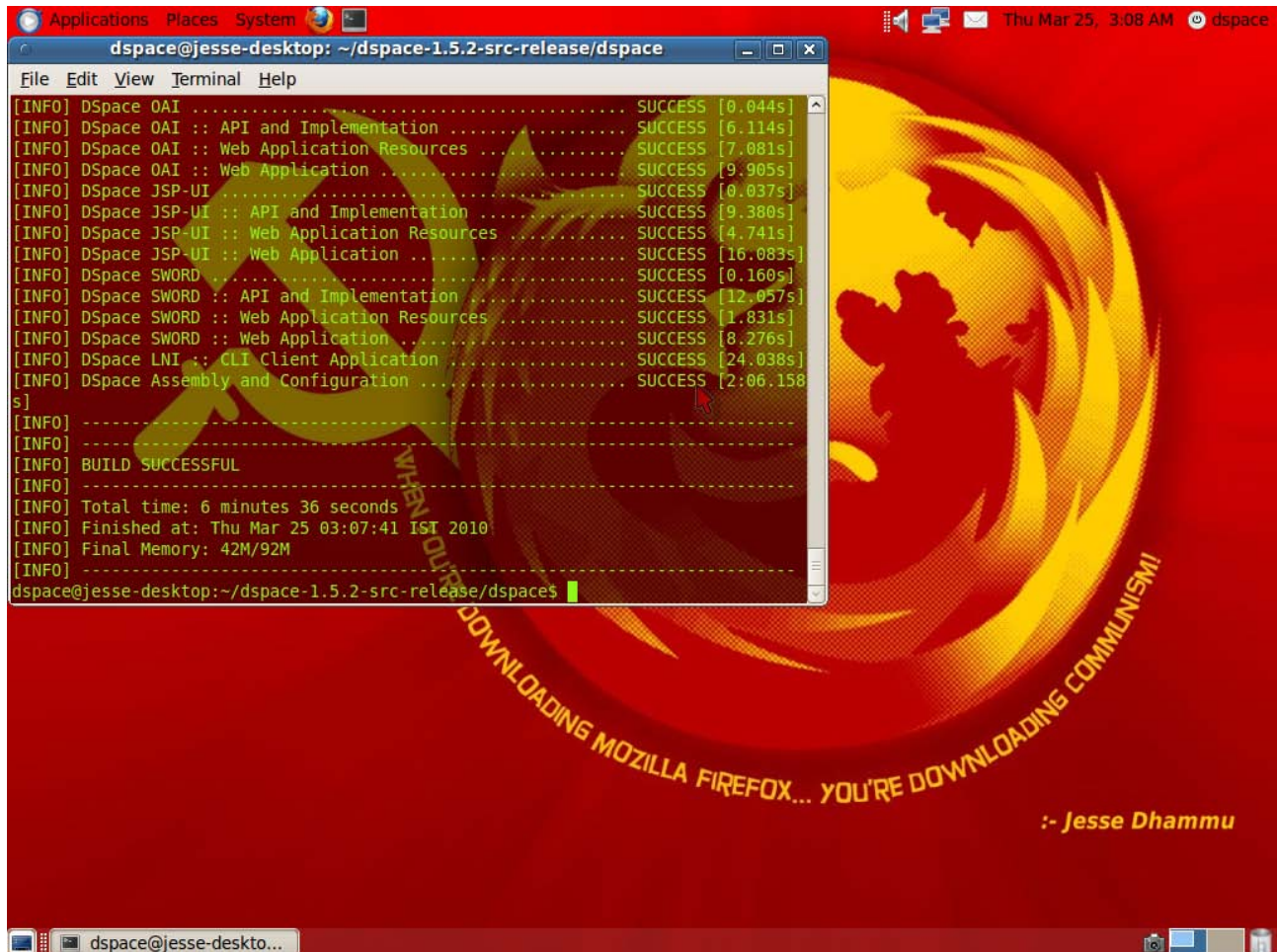
Open the terminal window and give the following command for **running the maven**

```
dspace@jesse-desktop:/$ cd home/dspace/dspace-1.5.2-src-release/dspace
```

```
dspace@jesse-desktop:~/dspace-1.5.2-src-release/dspace$ mvn package
```

(this may take some time because this command will download and install all the required maven packages.)

After waiting so long, it should show you this screen, and it will make a target folder in your home/dspace/dspace-1.5.2-src-release/dspace directory.



```
dspace@jesse-desktop: ~/dspace-1.5.2-src-release/dspace
File Edit View Terminal Help
[INFO] DSpace OAI ..... SUCCESS [0.044s]
[INFO] DSpace OAI :: API and Implementation ..... SUCCESS [6.114s]
[INFO] DSpace OAI :: Web Application Resources ..... SUCCESS [7.081s]
[INFO] DSpace OAI :: Web Application ..... SUCCESS [9.905s]
[INFO] DSpace JSP-UI ..... SUCCESS [0.037s]
[INFO] DSpace JSP-UI :: API and Implementation ..... SUCCESS [9.380s]
[INFO] DSpace JSP-UI :: Web Application Resources ..... SUCCESS [4.741s]
[INFO] DSpace JSP-UI :: Web Application ..... SUCCESS [16.083s]
[INFO] DSpace SWORD ..... SUCCESS [0.160s]
[INFO] DSpace SWORD :: API and Implementation ..... SUCCESS [12.057s]
[INFO] DSpace SWORD :: Web Application Resources ..... SUCCESS [1.831s]
[INFO] DSpace SWORD :: Web Application ..... SUCCESS [8.276s]
[INFO] DSpace LNI :: CLI Client Application ..... SUCCESS [24.038s]
[INFO] DSpace Assembly and Configuration ..... SUCCESS [2:06.158s]
[INFO] -----
[INFO] BUILD SUCCESSFUL
[INFO] Total time: 6 minutes 36 seconds
[INFO] Finished at: Thu Mar 25 03:07:41 IST 2010
[INFO] Final Memory: 42M/92M
[INFO] -----
dspace@jesse-desktop:~/dspace-1.5.2-src-release/dspace$
```

it means, Maven package has been compiled successfully. Now time to make webapps in dspace. First move to Dspace target folder and then dspace build.dir, which was made while compilation of mvn package.

Go to terminal window and run this command to move to dspace build directory in target folder.

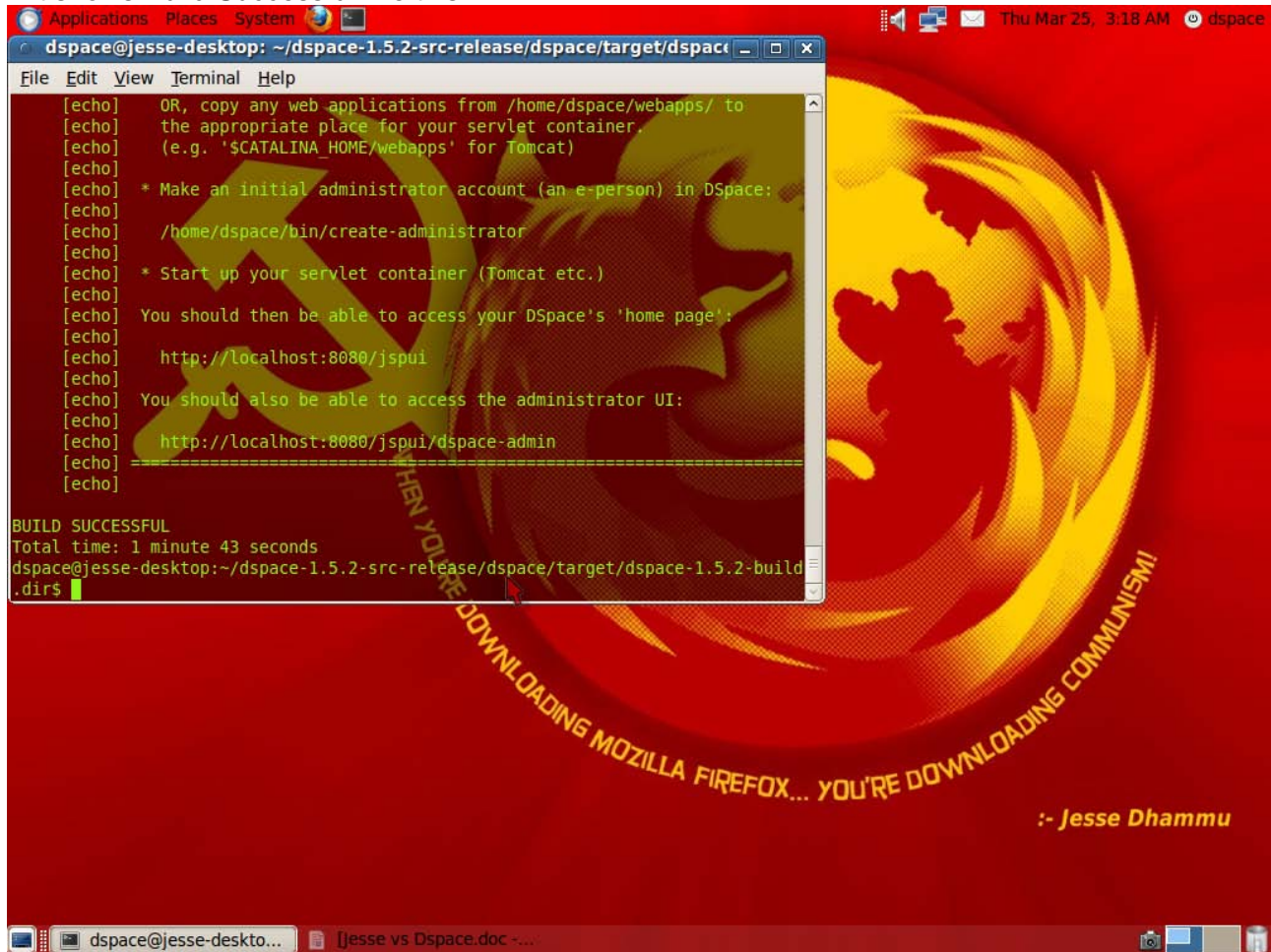
```
dspace@jesse-desktop:/$ cd /home/dspace/dspace-1.5.2-src-release/dspace/target/dspace-1.5.2-build.dir/
```

now run **ANT FRESH_INSTALL**

give the following command in terminal window.

```
dspace@jesse-desktop:~/dspace-1.5.2-src-release/dspace/target/dspace-1.5.2-build.dir$ ant fresh_install
```

If it shows Build Successful like this .



```
dspace@jesse-desktop: ~/dSPACE-1.5.2-src-release/dSPACE/target/dSPACE
File Edit View Terminal Help

[echo] OR, copy any web applications from /home/dSPACE/webapps/ to
[echo] the appropriate place for your servlet container.
[echo] (e.g. '$CATALINA_HOME/webapps' for Tomcat)
[echo]
[echo] * Make an initial administrator account (an e-person) in DSpace:
[echo] /home/dSPACE/bin/create-administrator
[echo]
[echo] * Start up your servlet container (Tomcat etc.)
[echo]
[echo] You should then be able to access your DSpace's 'home page':
[echo] http://localhost:8080/jspui
[echo]
[echo] You should also be able to access the administrator UI:
[echo] http://localhost:8080/jspui/dSPACE-admin
[echo] =====
[echo]
BUILD SUCCESSFUL
Total time: 1 minute 43 seconds
dspace@jesse-desktop:~/dSPACE-1.5.2-src-release/dSPACE/target/dSPACE-1.5.2-build
.dir$
```

Then you are just one step away from the success, my friend.

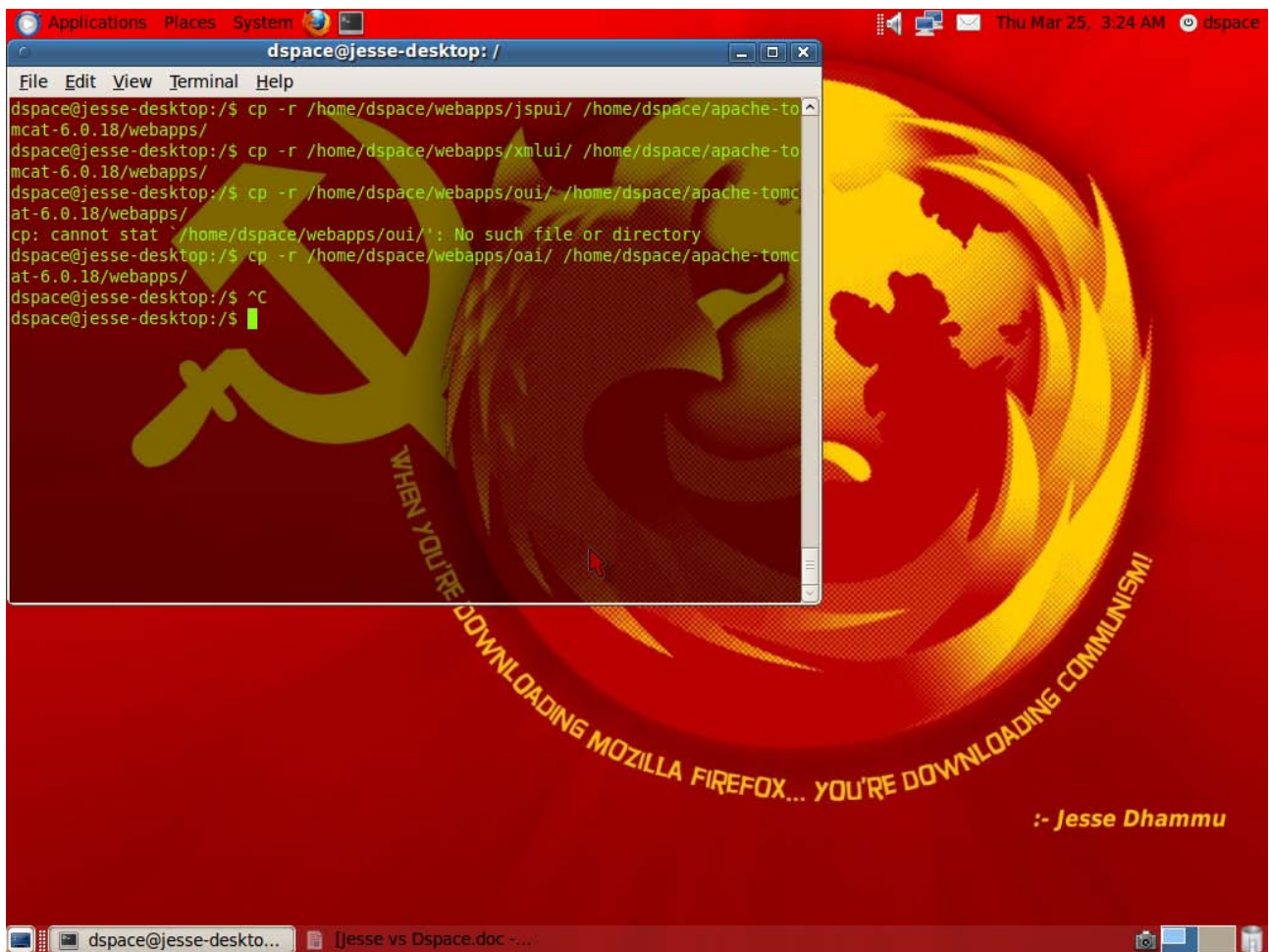
We just need to copy the webapps files, which will provide us the web interface of dSPACE. Those files need to be copied in tomcat directory.

Give these commands one by one to copy dSPACE JSPUI, XMLUI and OUI files to tomcat webapps folder.

```
dspace@jesse-desktop:/$ cp -r /home/dSPACE/webapps/jspui/ /home/dSPACE/apache-tomcat-6.0.18/webapps/
```

```
dspace@jesse-desktop:/$ cp -r /home/dSPACE/webapps/xmlui/ /home/dSPACE/apache-tomcat-6.0.18/webapps/
```

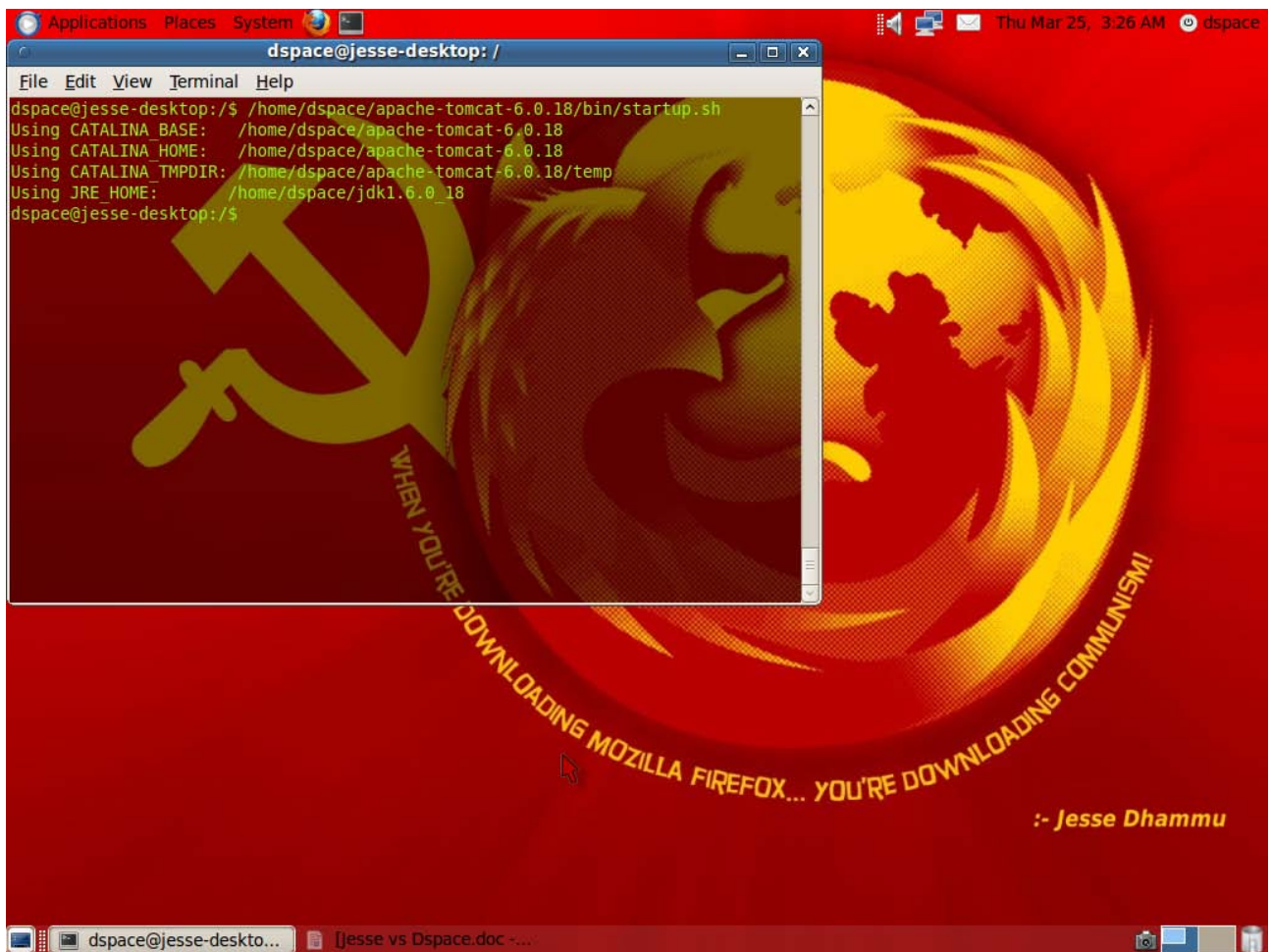
```
dspace@jesse-desktop:/$ cp -r /home/dSPACE/webapps/oai/ /home/dSPACE/apache-tomcat-6.0.18/webapps/
```

now **Start your Webserver Tomcat** by giving this command

```
dSPACE@jesse-desktop:/$ /home/dSPACE/apache-tomcat-6.0.18/bin/startup.sh
```

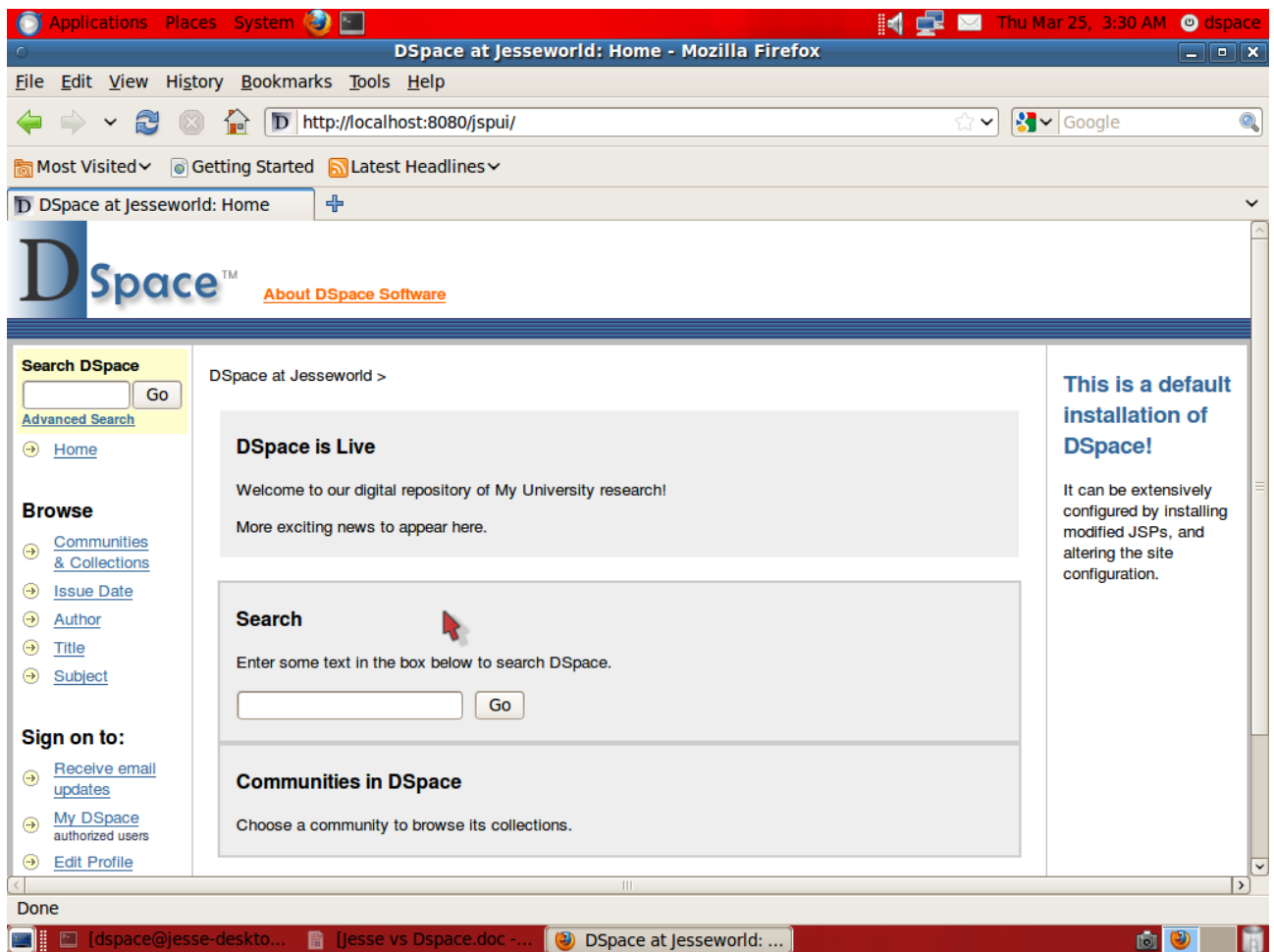
It will give you the following output on the screen and the webserver will start.



Ok now say HALLELUJAH!!!!
and open your web browser and browse any of this URL.

<http://localhost:8080/jspui>

<http://localhost:8080/xmlui>



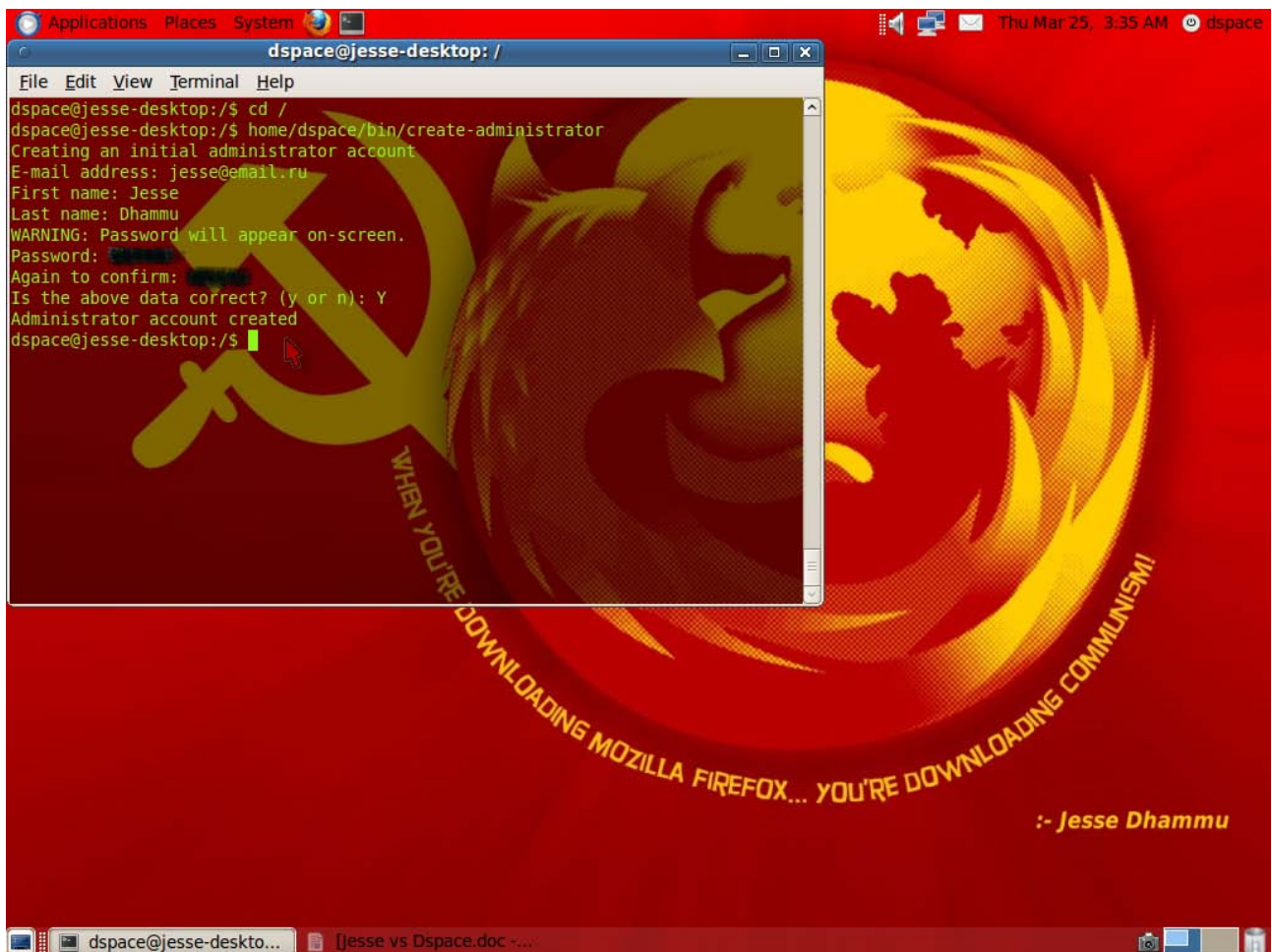
Thank the LORD first and then say ...Oh yes...!! It works!

Finally create an administrator account to monitor and administrate the repository site:

Give this command in terminal window.

```
$ home/dspace/bin/create-administrator
```

It will prompt you for some additional information. Like user name
email id
password etc.



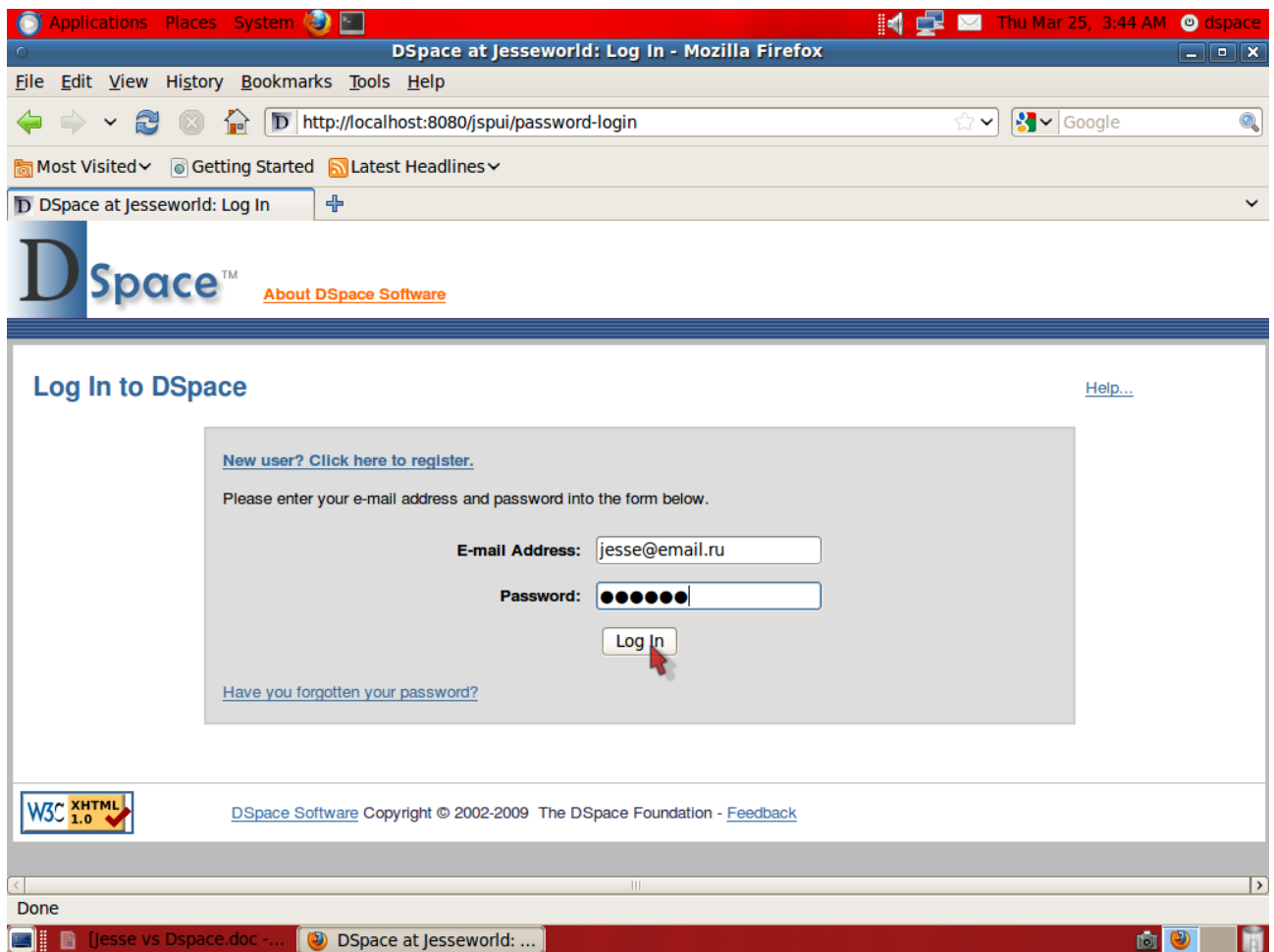
But be careful while giving your administrator password, coz terminal window will show it on the screen.

After this your're done.

This is Dspace Administrator URL

<http://localhost:8080/jspui/password-login>

You can login on Dspace using your Email id and password which you have provided while creating administrator, and create community, Collection, and can upload contents.



Dspace is Yours now. Enjoy!!

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